

Beutnagel 3-12-9

specification, and an energy specification. A specification can omit any one or more of these parameters.

Additionally, as stated a paragraph at col. 5, lines 55-58, the pitch contour specification – which is a value – carries with it the implied three values; that is, “pitch value of beginning point, mid point and end point...” It is not mentioned by Lee et al, but it is presumed that three values are computably different from each other, in order to enhance smooth transitions from one pitch to another. The presumption is based on the fact that there would be no need to mention three points within an interval if the three points had the same value, and a common value throughout would not carry the notion of a pitch contour. Similarly in a paragraph at col. 5, lines 59-62, the energy contour specification – which is a value – carries with it the implied three values; that is, “energy value of beginning point, mid point and end point...” For the reasons expressed above, it is presumed that the three energy values are also different from each other.

In contradistinction, claim 1 prior to its amendment included a limitation that specifies a target value for a prosody parameter **and** a time for reaching this target; to wit, “at a time offset from the beginning of the duration of” the phoneme. Lee et al do not actually specify a time offset, or any other time within a phoneme. Accordingly, claim 1 prior to its amendment is not anticipated by Lee et al.

The above notwithstanding, claim 1 is amended to make it clearer and to explicitly include an additional feature of the invention; that is, the feature of permitting a plurality of specifications associated with a phoneme, with each of the specifications having its own target value and its own time. Claim 1 is not amended for any reason related to patentability. As amended, claim 1 defines

for at least one of said phonemes, at least two prosody parameter specifications, with each specification of a prosody parameter specifying a target value for said prosody parameter and a point in time for reaching said target value (emphasis supplied)

Since this limitation is neither present in nor suggested by the Lee et al reference, it is respectfully submitted that amended claim 1 is not anticipated, or rendered obvious, by Lee et al even more clearly than the unamended claim 1.

Original claims 2-8 depended on claim 1 and, therefore, it is respectfully submitted that, at least for the reasons expressed above, the original claims 2-8 are not anticipated by

Beutnagel 3-12-9

Lee et al. It is noted, however, that claims 2-5, and 7 are amended herein to conform to the language of amended claim 1 and to highlight some specific features of the invention. Claims 6 and 8 are deleted. It is respectfully submitted that amended claims 2-5, 7 are neither anticipated nor rendered obvious by Lee et al.

Newly added claims 13-20 all ultimately depend on claim 1, adding additional limitations. It is respectfully submitted that all of these claims patentably distinguish over Lee et al

Newly added claim 21 is independent. It is very similar to the original claim 1 and, applicants believe, is neither anticipated nor rendered obvious by Lee et al. Applicants wish to point out that claim 21 even more clearly distinguishes over Lee et al by specifying that the offset time is **chosen**, in stark contrast to the automatic "beginning," "mid," and "end" points described by Lee et al. Claim 22 depends on claim 21 and is believed to also not be anticipated or made obvious by Lee et al because it highlights the unrestricted-by-specification nature of the specified prosody parameter at times other than the specified time.

A number of references were cited by the Examiner as pertinent but not applied to applicants' claims. These references were reviewed, and were found to contain no teachings that anticipate or render obvious the outstanding claims.

In light of the above amendments and remarks, applicants respectfully submit that all of the Examiner's rejections have been overcome. Reconsideration and allowance are respectfully solicited.

Respectfully,  
Mark Beutnagel  
Joern Ostermann  
Schuyler Quackenbusch

Dated: 2/16/02

By 

Henry T. Brendzel  
Reg. No. 26,844  
Phone (973) 467-2025  
Fax (973) 467-6589  
email [brendzel@home.com](mailto:brendzel@home.com)

Beutnagel 3-12-9

**Appendix – Amendment versions showing changes made**

IN THE CLAIMS:

1. (Amended) A method for generating a signal rich in prosody information comprising the steps of:

[a first step] including in said signal a plurality of phonemes represented by phoneme symbols,

[a second step] including in said signal a [desired] duration specification associated with [of] each of said phonemes [symbols],

[a third step] including, for at least one of said phonemes, at least two prosody parameter specifications, with each specification of a prosody parameter specifying a target [prosody parameter] value for said prosody parameter and a point in [within a duration for at least one of said phonemes at a] time [offset from the beginning of the duration of said phoneme that is greater than zero and less than the duration of said phoneme] for reaching said target value.

2. (Amended) The method of claim 1 where at least one of said two prosody parameter specifications specifies [is] pitch.

3. (Amended) The method of claim 1 where at least one of said two prosody parameter specifications specifies [is] energy.

4. (Amended) The method of claim 1 where [said third step includes target values for both pitch and energy] a first of said two prosody parameter specifications is a pitch specification and a second of said two prosody parameter specifications is an energy specification.

5. (Amended) The method of claim 1 where either one of said at least two prosody specifications specifies an energy with a target value corresponding to silence [at least some of the phonemes have no prosody parameter targets specified for the beginning of the durations of said at least some of the phonemes].

Beutnagel 3-12-9

Delete claim 6.

7. (Amended) The method of claim 1 where said point in time for reaching target value of a specified prosody parameter of a phoneme from said plurality of phonemes is [timing of said prosody parameter target specifications are] expressed in terms of time offsets from the beginning [of durations] of phonemes.

Delete claims 8 and 9.

10. (Amended) The method of claim [9] where said signal also includes text specifications.

Delete claims 11 and 12.

Please add the following new claims: --

13. The method of claim 10 where said signal also includes image specifications.

14. The method of claim 1 where said point in time is specified as an offset from beginning of said one of said phonemes.

15. The method of claim 1 where said at least two prosody parameter specifications comprise at least two pitch specifications.

16. The method of claim 1 where said at least two prosody parameter specifications comprise at least two pitch specifications followed by an energy specification.

17. The method of claim 1 where said at least two prosody parameter specifications comprise a plurality of one or more pitch specifications and a plurality of one or more energy specifications.

Beutnagel 3-12-9

18. The method of claim 1 where said at least one of said phonemes includes more than two prosody parameter specifications, with each specification of a prosody parameter specifying a target value for said prosody parameter and a point in time for reaching said target value

19. The method of claim 18 where each of at least two of said more than two parameter specifications specifies a pitch target value and a time for reaching said pitch target value.

20. The method of claim 18 where each of at least two of said more than two parameter specifications specifies an energy target value and a time for reaching said energy target value.

21. A method for generating a signal rich in prosody information comprising:  
a first step including in said signal a plurality of phoneme symbols,  
a second step including in said signal a desired duration of each of said phoneme symbols,  
a third step including at least one target prosody parameter value within a duration for at least one of said phonemes at a chosen time offset from the beginning of the duration of said phoneme that is greater than zero and less than the duration of said phoneme.

22. A method of claim 21 where said prosody parameter value is unrestricted at other than said chosen time offset.

--.